

REMARKS

Claims 1-5, 7-21 and 24-33 are pending in the present application. Claim 6 is herein cancelled. Claims 1, 20, 21, 25, 26, 28 and 29 are herein amended. Claims 32 and 33 are herein added. No new matter has been presented.

Support for newly amended claim 1 may be found in the as-originally filed specification, for example see paragraph [0053], original claim 6 and Figures 6, 7, 11 and 12.

Claims 20, 21, 25, 26, 28 and 29 are herein amended to provide further clarification.

Support for newly added claims 32 and 33 may be found in the as-originally filed specification, for example see Figures 6 and 7.

In the Amendment filed on August 19, 2009, claims 27 and 29 were incorrectly identified. In the previous Amendment, claim 27 was identified as currently amended and claim 29 was identified as previously presented. However, in the August 19, 2009 Amendment, claim 27 was not amended and claim 29 was amended.

In this Submission, the correct identifier for each of the claims is herein presented.

Claim Rejections - 35 USC § 112

Claims 1-21 and 24-31 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicant respectfully traverses this rejection.

Claim 1 is herein amended to recite the following structural features: a reflection band width of the polarizing element (A) is 200nm or more and a twist pitch length of a cholesteric liquid crystal in the polarizing element (A) varies along the thickness direction. In light of this amendment, this rejection is rendered moot.

Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections - 35 USC § 112

Claims 1-21 and 24-31 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly not providing an enabling disclosure. Applicant respectfully traverses this rejection.

Claim 1 is herein amended to recite the following structural features: a reflection band width of the polarizing element (A) is 200nm or more and a twist pitch length of a cholesteric liquid crystal in the polarizing element (A) varies along the thickness direction. In light of this amendment, this rejection is rendered moot.

Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections - 35 USC § 103

Claims 1-21 and 24-30 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bowley et al USPGPUB 2003/0063245 (hereinafter Bowley) in view of Winker et al USPAT 6,710,831 (hereinafter Winker). Applicant respectfully traverses this rejection.

Winkler discloses a system and method for improving the efficiency of conventional transflective liquid crystal displays (LCDs) by replacing the partially-reflective partially-transmissive mirror with a tunable mirror.

Bowley discloses a broadband cholesteric polarizer comprising first particles with a first cholesteric liquid crystal material and a second cholesteric liquid crystal material.

In the outstanding Office Action, the Examiner asserted that a broad band cholesteric polarizer of reasonable quality will perform as claimed. However, Bowley's first particles are

distributed in a matrix material. Therefore, Bowley does not disclose, teach, suggest or provide any reason for having the cholesteric pitch varied along a thickness direction. Furthermore, the cholesteric liquid crystal layers of the presently claimed invention and Bowley are structurally different and unobvious from one another.

In addition, Bowley does not disclose, teach, suggest or provide any reason for the effect of the present invention that the cholesteric liquid crystal layer transmits linearly polarized light in a case where an incidence angle of incident light is large.

These deficiencies are not overcome by the disclosure of Winker.

Furthermore, as presented in our August 19, 2009 Amendment, the presently claimed invention achieves unexpected results over the cited art. The technical effect of improvement on brightness with light collimation by the optical element of the presently claimed invention, wherein a polarizing element (A) and a linearly polarized light reflection polarizer (B) are laminated is an unexpected result over Bowley in view of Winker.

The present specification discloses that an optical element (X) of the presently claimed invention has a light condensing characteristic capable of reflecting light only at an arbitrary azimuth thereby to condense light at a necessary azimuth angle, including the front. See present specification, paragraphs [0067] and Figures 9 and 10. The present specification also discloses the principle of the improvement on brightness with light collimation by the optical element. See present specification, paragraphs [0058] to [0066].

Bowley and Winker merely mention that for the light in the normal direction of the optical element. They are both silent as to the light in an oblique angle, which is a technical

effect of the presently claimed invention. This feature of the presently claimed invention is not disclosed, taught, suggested or provided for in the cited art.

Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections - 35 USC § 103

Claim 31 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bowley in view of Winker as applied to claim 30 above, and further in view of Sahouani et al USPGPUB 2003/0184862. Applicants respectfully traverse this rejection.

Bowley in view of Winker does not render the presently claimed invention obvious. The deficiencies of Bowley in view of Winker are not overcome by the disclosure of Sahouani.

Thus, the combined reading of Bowley in view of Winker in further view of Sahouani fails to render the presently claimed invention obvious.

Favorable reconsideration is earnestly solicited.

In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the rejection under 35 U.S.C. §102 and the rejection under 35 U.S.C. §103 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

Application No. 10/576,614
Art Unit: 2871

Submission under 37 C.F.R. §1.114
Attorney Docket No. 062427

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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